

**IN THE UNITED STATES DISTRICT COURT  
FOR THE  
DISTRICT OF MASSACHUSETTS**

**AKAMAI TECHNOLOGIES, INC.,**

**and**

**MASSACHUSETTS INSTITUTE OF  
TECHNOLOGY,**

**Plaintiffs,**

**V.**

**DIGITAL ISLAND, INC.**

**Defendant.**

**Civil Action No. 00-cv-11851RWZ**

**Judge Rya W. Zobel**

## PLAINTIFFS' REPLY TO DIGITAL ISLAND'S COUNTERCLAIMS

Plaintiffs, Akamai Technologies, Inc. ("Akamai") and Massachusetts Institute of Technology ("MIT") (collectively "Plaintiffs"), by and through undersigned counsel reply as follows to the numbered paragraphs of the Counterclaims asserted by Defendant, Digital Island, Inc. ("DI") in Digital Island, Inc.'s Answer to Plaintiffs' Second Amended Complaint and Counterclaims for Declaratory Relief.

49. DI's counterclaims arise under the patent laws of the United States. The Court has subject matter jurisdiction over DI's counterclaims under 28 U.S.C. §§ 1331, 1338, and 1367.

### Plaintiffs' Reply:

(74)

Plaintiffs admit this Court has subject matter jurisdiction over disputes arising under the patent laws of the United States, but deny that DI's counterclaims for declaratory relief state valid claims.

50. Venue is proper in this Court under 28 U.S.C. § 1391 (b) and (c) and 28 U.S.C. § 1400 (b).

**Plaintiffs' Reply:**

Admitted.

51. Counterclaimant DI is a corporation organized under the laws of Delaware having its principal place of business at 45 Fremont Street, San Francisco, CA.

**Plaintiffs' Reply:**

Admitted.

52. Counterdefendant MIT is an educational institution located in this judicial district in Cambridge, Massachusetts.

**Plaintiffs' Reply:**

Admitted.

53. Counterdefendant Akamai is a corporation organized under the laws of Delaware having its principal place of business in this judicial district at 500 Technology Square, Cambridge, Massachusetts.

**Plaintiffs' Reply:**

Admitted.

54. DI is the first to invent, the first to implement and the first to seek to patent invention claimed in the '703 patent.

**Plaintiffs' Reply:**

Denied.

55. While Dr. Leighton and Mr. Lewin were working out theoretical algorithms (supported by federal grants), Sandpiper Networks, Inc. ("Sandpiper"), now a wholly-owned subsidiary of DI, had already conceived of, tested, and implemented and "adaptive content distribution" system, and was actually distributing content from a network of geographically dispersed servers.

**Plaintiffs' Reply:**

Denied.

56. In mid-1995, for example, Dave Farber and Andrew Swart, the founders of DI's predecessor (*i.e.*, Sandpiper), began research to address the problems associated with the traffic and load on the Internet and other networks. They came up with the concept of developing a proprietary network to distribute content over the Internet for content providers in Spring of 1996.

**Plaintiffs' Reply:**

Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the averments of paragraph 56, and they are therefore denied.

57. Sandpiper's system, which became known as "Footprint," delivered only embedded objects from servers closer to the end user while continuing to serve HTML pages from the content provider's web site back in early 1998.

**Plaintiffs' Reply:**

Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the averments of paragraph 57, and they are therefore denied.

58. The earliest embodiments of Footprint were beta tested in numerous sites beginning in early 1998, followed in Summer 1998 by the introduction of the first commercial product, Footprint 1.0.

**Plaintiffs' Reply:**

Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the averments of paragraph 58, and they are therefore denied.

59. Footprint was used, for example, by the LA Times to handle the Internet distribution of the infamous Starr report when it was released on September 11, 1998.

**Plaintiffs' Reply:**

Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the averments of paragraph 59, and they are therefore denied.

60. The technical and commercial benefits of the Footprint technology were recognized from the start, and this validated the need for content delivery networks, thereby creating the market into which Akamai later entered.

**Plaintiffs' Reply:**

Denied.

61. Sandpiper introduced a modified/updated version of its system, Footprint 1.02, in April-May 1999, and followed that in August 1999 with yet a different embodiment of its invention-Footprint 2.0.

**Plaintiffs' Reply:**

Plaintiffs admit that, due to the various shortcomings of the Footprint system, Sandpiper introduced various modifications and changes to the system, including the infringing system. The details as to the dates of those changes are as yet not fully known by Plaintiffs, and therefore Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the averments of paragraph 61, and they are therefore denied.

62. Before Akamai launched its FreeFlow system in Spring 1999, Sandpiper had set up a network servers located strategically throughout the Internet. These network servers recognized and adjusted to changes in network conditions, user demands and system loads, and delivered "fresh" content from the least busy servers and/or servers located close to the end-users requesting the information.

**Plaintiffs' Reply:**

Denied. Plaintiffs admit that the FreeFlow system was launched in Spring 1999, but Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the remaining averments of paragraph 62, and they are therefore denied.

63. To protect its Footprint invention, on February 10, 1998 – before Akamai conceived of the delivery service recited in the claims of the '703 patent – Sandpiper filed United States patent application No. 09/021,506 entitled "Optimized Network Resource Location." This application, which describes a method of delivering content over the Internet using a network of geographically

dispersed servers, issued on February 6, 2001 as U.S. Patent No. 6,185,598 ("the '598 patent").

**Plaintiffs' Reply:**

Plaintiffs admit that United States patent application No. 09/021,506 entitled "Optimized Network Resource Location" was filed on February 10, 1998, and also admit that this application eventually issued on February 6, 2001 as U.S. Patent No. 6,185,598. Plaintiffs deny that application No. 09/021,506 was filed before Akamai conceived of the delivery service recited in the claims of the '703 patent. Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the remaining averments of paragraph 63, and they are therefore denied.

64. Five months later, on July 14, 1998, Lewin and Leighton filed, as individuals, a "provisional" application from which MIT's '703 patent ultimately issued.

**Plaintiffs' Reply:**

Plaintiffs admit that Mr. Lewin and Dr. Leighton filed a provisional patent application on July 14, 1998, and that the '703 patent claims priority to the provisional patent application.

65. The earlier filed Sandpiper application issued as U.S. Patent No. 6,185,598 ("the '598 patent") on February 6, 2001.

**Plaintiffs' Reply:**

Plaintiffs admit that Sandpiper patent application number 09/021,506 was filed on February 10, 1998, and issued as U.S. Patent No. 6,185,598 on February 6, 2001.

66. The '598 patent discloses each and every element of at least claims 17, 18 and 19 of the '703 patent.

**Plaintiffs' Reply:**

Denied.

67. Since the filing date of the Sandpiper application precedes the application for the '703 patent, DI's '598 patent is prior art to the '703 patent under 35 U.S.C. §§ 102 (e), 102 (g) and 103.

**Plaintiffs' Reply:**

Plaintiffs admit that Sandpiper's application number 09/021,506 was filed before the application which led to the issuance of the '703 patent, however Plaintiffs deny the remaining averments of paragraph 67.

68. Akamai has not produced any documents that show that Dr. Leighton and Mr. Lewin conceived the content delivery service recited in the claims of the '703 patent before the application for the '598 patent was filed.

**Plaintiffs' Reply:**



Denied.

69. As devised in the Spring of 1996, and as disclosed in the '598 patent, Sandpiper's Footprint content delivery networks ("CDN") consisted of two basic features: "**reflectors**" (or content migrators) and/or "**repeaters**" (content distributors).

**Plaintiffs' Reply:**

Plaintiffs admit that the '598 patent discloses elements called "reflectors" and "repeaters." Plaintiffs are without knowledge or information sufficient to form a belief as to the truth of the remaining averments of paragraph 69, and they are therefore denied.

70. The '598 patent further discloses an embodiment in which reflectors are placed at the content provider's site, where they intercept users' requests and determine how to handle them. Reflectors monitored the Internet and the repeaters to determine traffic and load conditions. Based on this collected data, the reflectors determined which server was best (that is, to rendezvous the user with the best server).

**Plaintiffs' Reply:**

Plaintiffs admit that Fig. 1 of the '598 patent shows a reflector placed at the content provider's site and that the reflector intercepts the user's requests. Plaintiffs are without

knowledge or information sufficient to form a belief as to the truth of the remaining averments of paragraph 70, and they are therefore denied.

71. The '598 patent also discloses that the reflector could be software that runs on the content provider's server and both (1) selects the best server in the content distributor's network from which to serve a request and (2) dynamically rewrites URLs embedded in HTML pages to direct subsequent requests to the best content distributor server.

**Plaintiffs' Reply:**

Denied.

72. Other configurations of Sandpiper's invention, such as Footprint 1.02 and footprint 2.0, separated selecting the best site from rewriting the URLs, and set up a DNS-type server to select the best server – that is, to "rendezvous" the user with the best server.

**Plaintiffs' Reply:**

Plaintiffs are without information sufficient to distinguish the various version numbers of the Sandpiper Footprint system with clarity, and therefore deny the allegations of this paragraph. Plaintiffs admit and aver, however, that at some point the Sandpiper Footprint system began using what Plaintiffs understand to be a "DNS-type" system for "rendezvous," which system infringes the '703 patent.

73. To provide the requested content from a repeater, the '598 patent discloses rewriting of the URLs of the embedded content so as to direct the user to one or more repeater servers.

**Plaintiffs' Reply:**

Denied. The '598 patent discloses rewriting of a URL to indicate a specific repeater server.

74. One method of rewriting the URLs of embedded objects disclosed in the '598 patent was to add a repeater network designation to the existing URL.

**Plaintiffs' Reply:**

Denied as written. The URLs of the '598 patent were disclosed as identifying a specific repeater that was part of a repeater network but the '598 patent specifically *did not* disclose designating merely a repeater network, with the specific repeater selected at the time of DNS resolution.

75. Given the overwhelming evidence that Sandpiper was a prior inventor of the subject matter of the '703 patent, the '703 patent is invalid.

**Plaintiffs' Reply:**

Denied.

76. In the Second Amended Complaint in this action, MIT alleges that DI infringes its '703 patent. DI denies this allegation. A justiciable controversy therefore exists between DI and MIT with respect to the '703 patent.

**Plaintiffs' Reply:**

Admitted.

77. DI realleges and incorporates by reference paragraphs 49-76 above as though set forth herein.

**Plaintiffs' Reply:**

Plaintiffs reallege and incorporate by reference their responses to DI's paragraphs 49-76 above as though set forth herein.

78. By this counterclaim, DI seeks a declaratory judgment that each claim of the '703 patent is invalid because, among other things, (i) DI was the first to invent the content delivery service recited in those claims – thereby rendering the claims of the '703 patent invalid under 35 U.S.C. § 102 (g) – and (ii) DI's '598 patent discloses the limitations recited in those claims – thereby rendering the claims of the '703 patent invalid under 35 U.S.C. §§ 102 (e) and/or 103.

**Plaintiffs' Reply:**

Plaintiffs admit that DI is seeking a declaratory judgment of invalidity, but deny the remaining averments of paragraph 78.

79. On October 18, 1996, the patent application that eventually issued as the '030 patent was filed.

**Plaintiffs' Reply:**

Plaintiffs admit that the patent application filed on October 18, 1996 eventually issued in the '030 patent. Plaintiffs further assert that the '030 patent is entitled to an effective filing date of June 7, 1995.

80. During prosecution of the application for the '030 patent, InterVu, which is now a wholly owned subsidiary of Akamai, filed a second patent application that was almost entirely the same as the application for the '030 patent.

**Plaintiffs' Reply:**

Plaintiffs' admit that Inter Vu filed a second application – application serial number 09/213,946 – that contained a common written description with the application that led to issuance of the '030 patent.

85. For example, independent claim 49 of the '030 patent is repeated verbatim as claim 39 in InterVu's second patent application.

**Plaintiffs' Reply (Note: Digital Island's counterclaims did not include paragraphs 81-84):**

Denied.

86. Despite the existence of identical claims in both the application for the '030 patent and InterVu's second application, the two applications name only one common inventor.

**Plaintiffs' Reply:**

Denied.

88. Given the overwhelming evidence that the inventors named on the '030 patent are not the true and correct inventors of that patent, the '030 patent is invalid.

**Plaintiffs' Reply:**

Denied.

89. In the Second Amended Complaint in this action, Akamai alleges that DI infringes its '030 patent. DI denies this allegation. A justiciable controversy therefore exists between DI and Akamai with respect to the '030 patent.

**Plaintiffs' Reply:**

Admitted.

90. DI realleges and incorporates by reference paragraphs 49-89 above as though set forth herein.

**Plaintiffs' Reply:**

Plaintiffs reallege and incorporates by reference their responses to DI's paragraph's 49-89 above as though set forth herein.

91. By this counterclaim, DI seeks a declaratory judgment that each claim of the '030 patent is invalid because, among other things, the '030 patent does not name the true and correct inventors – thereby rendering the claims of the '030 patent invalid under 35 U.S.C. § 116.

**Plaintiffs' Reply:**

Plaintiffs admit that DI is seeking a declaratory judgment of invalidity, but deny the remaining averments of paragraph 91.

**RELIEF REQUESTED**

Wherefore, Akamai and MIT pray for judgment and relief including:

(A) Judgment that Digital Island's counterclaims be dismissed with prejudice and without relief or recovery to Digital Island;

(B) Judgment that the '703 patent is not invalid and that Digital Island has been and is infringing one or more of the claims of the '703 patent in violation of 35 U.S.C. § 271;

(C) Judgment that the '030 patent is not invalid and that Digital Island has been and is infringing one or more of the claims of the '030 patent in violation of 35 U.S.C. § 271;

(D) A preliminary and permanent injunction enjoining Digital Island, its officers, agents, servants, employees and others acting for or on its behalf from infringing or inducing infringement of the '703 patent and the '030 patent;

(E) An award of damages incurred as a result of infringement by Digital Island;

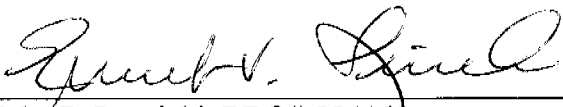
(F) An award trebling the damages pursuant to 35 U.S.C. § 284 for willful infringement of the '703 patent and the '030 patent;

(G) An award of costs and reasonable attorneys' fees pursuant to 35 U.S.C. § 285, as well as an award of prejudgment interest;

(H) Judgment that Akamai's content delivery services do not and have not infringed the '791 patent;

(I) Such other and further relief as this Court may deem just and proper.

Date: May 7, 2001

  
John P. Iwanicki BBO# 556465  
Ernest V. Linek BBO# 543985  
BANNER & WITCOFF, LTD.  
28 State Street, 28<sup>th</sup> Floor  
Boston, Massachusetts 02109  
617-227-7111  
[iwanicki@bannerwitcoff.com](mailto:iwanicki@bannerwitcoff.com)

Mark T. Banner  
Christopher J. Renk  
J. Pieter van Es  
Aimee M. Boss  
BANNER & WITCOFF, LTD.  
Ten South Wacker Drive, 30<sup>th</sup> Floor  
Chicago, Illinois 60606  
312-715-1000  
[mtbanner@bannerwitcoff.com](mailto:mtbanner@bannerwitcoff.com)



Attorneys for Plaintiffs  
Akamai Technologies, Inc. and  
Massachusetts Institute of Technology

**CERTIFICATE OF SERVICE**

I certify that a true copy of the foregoing document was served by hand upon the defendant Digital Island, Inc. by delivering a copy of same to:

Eileen M. Herlihy  
Goodwin Procter LLP  
Exchange Place  
Boston, Massachusetts 02109  
617-570-1000  
617-523-1231 (fax)

and by delivering courtesy copies via U.S. mail, postage prepaid, first class, and facsimile to:

Arthur Wineburg  
Lynn E. Eccleston  
Pillsbury Winthrop LLP  
1100 New York Avenue, N.W.  
Suite 900  
Washington, D.C. 20005-3918  
202-861-3000  
202-822-0944 (fax)

Brian J. Beatus  
Pillsbury Winthrop LLP  
2550 Hanover Street  
Palo Alto, California 94304-1115  
650-233-1115  
650-233-4545 (fax)

Date: 5/7/2001

